

Application No. 10/722,814
Amendment dated February 17, 2006
After Final Office Action of December 21, 2005

Docket No.: 29936/39765

REMARKS

This paper is in response to the official action of December 21, 2005.

Reconsideration is requested.

Claims 1-5 and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 6,380,029) and Dong et al. (US 2002/0068398). Reconsideration is requested.

Claim 1 has been amended to more clearly describe the present invention without adding any new matter.

Referring to amended claim 1 and Fig. 3, the polysilicon film (22b) and the tungsten silicide film (20) are sequentially formed on the semiconductor substrate (with the tungsten silicide film overlapping the polysilicon film) to form a gate electrode. The etch rate of the tungsten silicide film (22b) is similar to that of the polysilicon film (20) by the annealing process. As a result, the tungsten silicide film (22b) and the polysilicon film (20) can be etched by the same etching gas, as recited in amended claim 1.

The examiner asserts that Chang teaches forming a gate electrode by etching the WSi (50) and the polysilicon (52) using Cl_2/O_2 (col. 8, lines 53-55). However, the polysilicon (52) is formed as a hard mask (corresponding to the hard mask 24 of the present invention), but not as a control gate. Therefore, the polysilicon (52) is formed on the WSi (50). A layer to form a control gate is a doped polysilicon layer (48) that is formed under the WSi (50). That is, a control gate of Chang consists of WSi (50) and the doped polysilicon layer (48). Referring to col. 8, lines 53-57, WSi (50) and the doped polysilicon layer (48) are etched by different etching gases. As mentioned above, Chang does not teach or suggest that the WSi (50) and the polysilicon layer (48) under the WSi (50) are etched by the same etching gas.

Accordingly, the applicant believes that the amended claim 1 is patentable over the cited references and other claims depending on the base claim 1 are also in condition for allowance.

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Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang and Dong as applied to claim 1 above, and further in view of Xu et al. (US 6,544,896).

Claims 6-7 depend from claim 1. The applicant believes that claims 6 and 7 are also in condition for allowance on the same basis as claim 1.

Should the examiner wish to discuss the foregoing or any matter of form in an effort to advance this application towards allowance, he is urged to telephone the undersigned at the indicated number.

February 17, 2006

Respectfully submitted,

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